

1. A me

1. A method of fabricating a sealed cavity for containing a microstructure comprising the steps of :
 - providing a substrate;
 - depositing one or more sacrificial layers on said substrate;
 - depositing a first seal layer on top of said one or more sacrificial layers;
 - forming one or more holes in said first seal layer, said holes communicating with said one or more sacrificial layers;
 - introducing an etchant into said one or more holes such that said one or more sacrificial layers are etched away by said etchant;
 - depositing a second seal layer on top of said first seal layer, said second seal layer sealing said one or more holes in said first seal layer;
 - wherein said etchant used to remove the last of said sacrificial layers is a non-liquid material.
2. The method of claim 1 further comprising the step of choosing said etchant to etch said sacrificial layers without substantially etching said substrate or said first seal layer.
3. The method of claim 1 wherein said substrate is a silicon wafer having a layer of silicon nitride deposited thereon.
4. The method of claim 2 wherein said etchant is oxygen plasma and said one or more sacrificial layers are composed of photoresist.
5. The method of claim 1 further comprising the step of forming a microstructure in said cavity.
6. The method of claim 5 wherein said step of forming a microstructure in said cavity comprises the steps of:

depositing one or more layers of structural material between said one or more sacrificial layers;
shaping said structural material to the shape of the desired microstructure; and
removing said one or more sacrificial layers using a non-liquid etchant.

7. The method of claim 6 wherein said step of shaping comprises the steps of:
depositing a layer of photoresist over said layer of structural material;
etching away said structural material leaving the desired shape; and
removing any remaining photoresist material.
8. The method of claim 6 wherein said structural material is resistant to said etchant.
9. The method of claim 8 wherein said structural material is aluminum and wherein said etchant is oxygen plasma.
10. The method of claim 9 wherein said sacrificial layers are composed of an organic polymer.
11. The method of claim 10 wherein said organic polymer is photoresist.
12. The method of claim 7 wherein said microstructure is released when all surrounding sacrificial layers are etched away.
13. The method of claim 7 wherein said sacrificial layers are made of different materials and wherein a wet etchant may be used to remove all but the last or said sacrificial layers holding said microstructure.
14. The method of claim 13 wherein said last sacrificial layer holding said microstructure is removed using said non-liquid etchant.
15. The method of claim 6 wherein each all of said sacrificial layers are composed of the

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